

## Adult salmon... Continued

important to define the actual rate of "shaker mortality" prior to a decision on a complete marking program.

Currently the adipose fins are removed from all young salmon receiving coded-wire nose tags. Most of these fish are of hatchery origin. This external mark remains on the fish throughout its life and is readily discernable by biologists and fishermen. If another reliable external mark were available it may provide an opportunity to protect weaker stocks and naturally produced fish through selective harvest regulations. This may be established in certain zones and may not require that all hatchery fish be marked. Literally millions of young salmon are produced each year at seven major fish hatcheries and many fish facilities and pond rearing sites in California alone. To be effective along the entire coast of California this program may also need to be implemented in Oregon and Washington. The evaluation of this program should consider biological issues, cost, and the time period before any benefits may be perceived.

- b. Request the California Fish and Game Commission to establish a zero salmon limit in the San Joaquin drainage from River Mile zero near Chipps Island upstream to the first major dams on all spawning tributaries south of Stockton.

Current regulations protect San Joaquin salmon only after they have migrated upstream of Interstate Highway 5 Bridge near Mossdale Crossing. Angling in the Delta during the fall and winter migration months can harvest adult salmon destined for the San Joaquin tributaries.

- c. Evaluate ocean distributions and other information for San Joaquin fall-run relative to other fall-run stock, and the procedures for modifying the Pacific Fisheries Management Council Framework Plan that defines current fish management policies and ocean regulations.

Currently the Framework Plan provides for ocean management of all Central Valley fall-run stock as a single unit with a spawning escapement goal in the Sacramento River of 122,000 to 180,000 hatchery and natural adult salmon combined. In addition, the ocean management strategy seeks to (a) limit the harvest of Klamath River fall-run chinook, and (b) to limit the impacts on Sacramento winter-run chinook salmon to a level no greater than occurred in 1990. The Director

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of the Department of Fish and Game makes annual harvest recommendations for California fisheries to the Pacific Fisheries Management Council. The California Fish and Game Commission typically adopts regulations for the zero to three mile zone along the coast that are consistent with those adopted by the Council (affecting the area 3 to 200 miles off the coast).

Under the current Framework Plan the harvest of San Joaquin fall-run stock (the weaker stock) in the ocean is managed based on the status of the Sacramento River stock. Significant hatchery contributions help maintain the Sacramento River runs within the Framework Plan goal. Under this scenario the San Joaquin runs can be very low but if the Sacramento River runs fall within the goal no further protective action in the ocean is taken. This "surrogate" protection for San Joaquin stocks in Federal and State jurisdiction waters (0 to 200 miles off the coast) may not provide adequate protection in the ocean to ensure adequate spawning escapements, particularly during extended periods of below normal or drier runoff. This action item proposes that responsible agencies (1) review existing biological information and (2) implement the two-year amendment procedures for modifying the Framework Plan to protect San Joaquin stock separately if feasible alternatives are available. Such changes should ensure that over-escapement does not occur in the Sacramento River, and that sport and commercial fisheries are not closed in lieu of more significant actions more likely to improve escapements.

- d. Law enforcement effort should be elevated during October through December to curb poaching losses in the designated salmon spawning areas of the San Joaquin drainage.

The Department of Fish and Game is reviewing planned work schedules of adjoining unit staff and has recently filled the Modesto Warden position. Six new Warden positions have been established in the Delta through the use of mitigation funds and additional effort in the Old River and Middle River area may be helpful if Action Item 1.b. is implemented. Despite budget constraints a priority should be placed on protection of spawning runs and habitats through 1996. A de-briefing at the end of each season should be completed to make necessary refinements.

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- e. Recognizing the limits of existing funding and staffing, agencies involved should pursue options for redirection or additional staffing, operating and overtime funding to increase law enforcement efforts in the spawning area from late October through December during each of the next five years.

Similar to the expanded enforcement effort in the Delta to reduce poaching losses, funding from the Delta Pumps Fish Protection Agreement or other sources could be pursued to increase enforcement effort on the San Joaquin spawning and nursery areas. A range of options including overtime funds and additional personnel should be considered.

- f. Responsible agencies could develop an information document requesting voluntary assistance of the various constituent groups in activating Stream-Watch networks.

Pertinent information on reporting violations, the population status and the activities underway to restore San Joaquin drainage runs could be dispersed. Sportsmen clubs and landowners have developed Fisheries Watch Networks to help protect habitats and fisheries in their area. A public relations effort to increase the involvement of these groups could be very helpful.

- g. Increase the incentives for reporting violations.

Clubs should be encouraged to make CalTIP contributions as conservation projects to stimulate reporting and improve the effectiveness of protecting salmon in the spawning areas. County Fine Committees may also provide funding for this purpose. A bumper sticker campaign may help encourage participation.

- h. Explain the importance of protecting fall-run salmon in the San Joaquin drainage.

Joint press releases by participating parties, public relations articles in the San Joaquin Valley newspapers, Outdoor California, Western Water, agricultural newsletters or other publications could be helpful and many people would be interested. Descriptions of the voluntary actions taken by the SJRMP participants to restore this salmon stock should be published and widely distributed. Discussions on public radio and television stations could be beneficial.

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This action item not only increases the base of understanding in the local and not-so-local areas but also provides an excellent public relations opportunity for those entities participating in the various action items. Greater public support may be the key to decisions on contentious action items. Thus, effective public relations may be a necessary precursor to implementing other action items.

2. Upstream migration of adult salmon Low dissolved oxygen, high water temperatures and a lack of attraction flows of San Joaquin River drainage origin appear to cause blockage or delays and straying during fall migrations upstream. The following actions have the potential to stimulate more timely and successful upstream migrations of adult salmon to their natal spawning areas:

- a. Improve instream flows in the Merced, Tuolumne and Stanislaus and San Joaquin rivers.

Voluntary land fallowing programs, efficiency improvements, temporary water sales, purchase of water rights or lands with water rights, exchanges/transfers through the use of the State Water Bank or other arrangements, and implementation of the recent Tuolumne River Agreement should all be considered as alternatives to augment instream flows.

Water Bank sales on the Stanislaus (50 TAF) and Merced rivers (15 TAF) were performed in 1992. Interim benefits to instream uses in these river and the San Joaquin River can occur when economic incentives for water right holders are available. There appear to be many innovative ways to improve instream flows on an interim basis. Responsible agencies and water right holders could proactively pursue such measures, consistent with the Governor's Water Policy. The U.S. Bureau of Reclamation's Friant EIS, the San Joaquin River Basin Resources Management Initiative, CVP reform legislation or other federal actions may also lead to improvements in instream flows.

Accelerating planning studies for additional offstream storage and conjunctive use programs with emphasis on improvement of salmon habitat could be encouraged. Efforts underway by the U.S. Bureau of Reclamation on Montgomery Reservoir in the Merced River drainage is one example.